

REMARKS

By this Reply, Applicant cancels claims 1 and 2, without prejudice or disclaimer of the subject matter therein, amends claims 3 and 4, and adds new claim 5. Claims 3-5 are therefore pending in this application.

In the Office Action of June 21, 2006 ("Office Action"),¹ claims 1 and 2 were rejected 35 U.S.C. § 102(b) as anticipated by U.S. Patent No. 5,526,336 ("*Park*"); claim 3 was rejected under 35 U.S.C. §103(a) as unpatentable over *Park* in view of U.S. Patent No. 5,648,950 ("*Takeda*"); and claim 4 was rejected under 35 U.S.C. §103(a) as unpatentable over *Park* in view of Japanese Publication JP 10302403 A ("*Hayata*") and also rejected under §103(a) as unpatentable over *Park* in view of *Takeda* further in view of *Hayata*.

The §102(b) rejection of claims 1 and 2 is rendered moot by the cancellation of those claims. The §103(a) rejection of claim 4 based on *Park* (as applied to claims 1 and 2) in view of *Hayata* is also rendered moot, since claims 1 and 2 have been canceled and claim 4 has been amended to depend only upon claim 3. The outstanding §103 rejections and the new claim are addressed below.

Section 103(a) rejection of claim 3

Applicant traverses the §103 rejection of claim 3 because *Park* and *Takeda* do not support a case for *prima facie* obviousness. To establish *prima facie* obviousness under § 103(a), the applied references, taken alone or in

¹ The Office Action contains a number of statements reflecting characterizations of the related art and the claims. Regardless of whether or not any such statement is identified herein, Applicant declines to automatically subscribe to any statement or characterization in the Office Action.

combination, must teach or suggest each and every element recited in the claims. There must also be some suggestion or motivation to combine or modify the reference(s) in a manner resulting in the claimed invention. In addition, a reasonable expectation of success must exist. *See* M.P.E.P. § 2143.03.

Independent claim 3 recites a combination including an “optical system” that includes, *inter alia*:

a collimator lens for converting the laser beam reflected or transmitted by the half mirror into parallel light; and

an object lens for condensing the laser beam converted to parallel light by the collimator lens onto the recording surfaces of the optical disk, having a curvature or refractive index that varies by steps in the radial direction, and comprising a multifocal lens for focusing on recording surfaces of the optical disk.

Park fails to disclose or suggest at least these features. In *Park*’s system, a Fresnel lens (4) is required to focus beam spots on the multiple layers (7, 8) of the optical disk. *See* col. 3, lines 40-50; Figs. 7, 8. In contrast, the “optical system” recited in claim 3 does not require a Fresnel lens and includes an “object lens” that can condense a laser beam onto recording surfaces of multiple layers of the optical disk. Further, while *Park* mentions a collimator lens (2), the reference does not disclose or suggest that the collimator lens “[converts] a laser beam reflected or transmitted by a half mirror into parallel light,” as claimed. *See* Figs. 7, 8.

Takeda fails to cure *Park*’s deficiencies. *Takeda*’s system splits a light beam from a source into beamlets, which are focused to form beam spots on the recording surface of an optical disk. Col. 4, lines 60-65; Fig. 2. *Takeda* does not

disclose at least an “optical system,” including a “collimator lens” and an “object lens,” as recited in claim 3. Although *Takeda* mentions a collimator lens (4a), the reference does not disclose or suggest a “collimator lens” that “[converts] a laser beam reflected or transmitted by a half mirror into parallel light,” as claimed. See Fig. 22; col. 2, lines 7-16. *Takeda* also fails to disclose or suggest an “object lens” that condenses a laser beam onto recording surfaces of multiple layers of an optical disk, as claimed. *Takeda* does not disclose that objective lens 14 can focus a laser beam onto recording surfaces of multiple layers of an optical disk. See Figs. 1, 9, 15.

For at least the foregoing reasons, the applied references, taken alone or in combination, fail to disclose or suggest each and every feature of claim 3. Accordingly, *prima facie* obviousness has not been established.

Moreover, the Office Action failed to show by clear and particular evidence that a skilled artisan considering *Park* and *Takeda*, and not having the benefit of Applicant’s disclosure, would have modified or combined the references as alleged or in a manner resulting in the invention defined by claim 3. The Office Action alleged that a skilled artisan would have “used a rising mirror [13] and a diffraction grating [12, 17] for directing light to different parts of a photodetector in order to properly detect light that has different polarization used during recording and to reduce the size of the optical system used by Park.” Office Action, p. 5. This conclusory allegation in the Office Action is not supported by evidence on the record and does not show that a skilled artisan would have combined or modified the references as alleged.

For example, the Office Action provided no evidence supporting the assertion that the alleged modification would “reduce the size of the optical system used by Park.” That an object of *Takeda*’s system might be to reduce the number of parts in an optical pickup system does not by itself show that the alleged modification would in fact reduce the size of *Park*’s system. See Office Action, p. 5. Further, that the alleged modification might reduce the system size does not establish that a skilled artisan would have combined or modified the references.

In addition, the Office Action has not established why or how a skilled artisan would use *Takeda*’s polarization separation device 17 in *Park*’s system. *Park*’s system is already capable of routing light reflected from an optical disk to photodetectors using beam splitters. *Takeda*’s system employs the polarization separation device 17 to separate light reflected from a magneto-optical disk into ordinary and extraordinary components for receipt by various light-receiving elements. See Figs. 9 and 15; col. 10, lines 17-30. The Office Action provides no reasoning, beyond conjecture, to establish that a skilled artisan would have been concerned with incorporating *Takeda*’s magneto-optical and polarization separation functionality in *Park*’s system. Likewise, the Office Action provides no evidence showing why or how a skilled artisan would incorporate *Takeda*’s alleged rising mirror (13) or hologram device (12) device in *Park*’s system.

Applicant submits that teachings of the present application were impermissibly used in hindsight to piece together isolated disclosures of the applied references in an attempt to defeat patentability of Applicant’s claims.

Indeed, neither of the references discloses or suggests an optical system as recited in claim 3.

The Office Action also failed to show a reasonable expectation of success in incorporating *Takeda's* alleged rising mirror and diffraction grating in *Park's* system. The Office Action has not shown that skilled artisans would have understood how *Park's* system would need to be modified to accommodate *Takeda's* features or that *Park's* system could even be so modified without changing its principle of operation.

For at least these additional reasons, *prima facie* obviousness has not been established with respect to claim 3. Because *prima facie* obviousness has not been established, the § 103(a) rejection of claim 3 should be withdrawn.

Section 103(a) rejection of claim 4 based on *Park*, *Takeda*, and *Hayata*

Applicant traverses the §103 rejection of claim 4 because a case for *prima facie* obviousness has not been established.

Claim 4 depends upon claim 3. For at least the reasons presented above in connection with claim 3, *Park* and *Takeda*, taken alone or in combination, fail to disclose or suggest an "optical system" as recited in claim 3 and required by dependent claim 4. Further, *Hayata* does not cure the deficiencies of *Park* and *Takeda*. Although *Hayata* discloses reading data from different layers of a DVD, the reference does not disclose or suggest at least an "optical system" as required by claim 4. Accordingly, the applied reference, taken alone or in combination, fail to disclose or suggest each and every feature of claim 4.

In addition, the requisite motivation to combine the references and the requisite reasonable expectation of success are lacking. For at least reasons similar to those presented above in connection with claim 3, the Office Action has not established that a skilled artisan would have combined *Park* and *Takeda* as alleged or the required reasonable expectation of success. Furthermore, the Office Action provided no motivation or explanation whatsoever with respect to combining *Park*, *Takeda*, and *Hayata*.

For at least the foregoing reasons, *prima facie* obviousness has not been established with respect to claim 4. The §103(a) rejection of that claim should therefore be withdrawn.

New claim 5

New claim 5 depends upon claim 3. The applied art fails to anticipate or render obvious new claim 5 for at least reasons similar to those presented above in connection with claim 3. Furthermore, new claim 5 recites that “the collimator lens is interposed between the half mirror and the optical disk and . . . the object lens is interposed between the collimator lens and the optical disk.” Neither *Park*, *Takeda*, nor *Hayata*, nor any combination thereof, discloses or suggests these additional features of new claim 5. Applicant therefore requests the timely allowance of new claim 5.

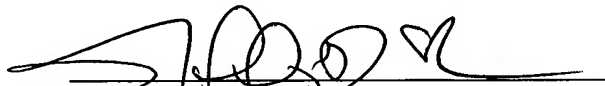
Conclusion

Applicant requests the Examiner's reconsideration of the application in view of the foregoing and the timely allowance of pending claims 3-5. If there are any questions regarding this paper or the application in general, a telephone call to the undersigned would be appreciated since this should expedite the prosecution of the application for all concerned.

If necessary to effect a timely response, this paper should be considered as a petition for an Extension of Time sufficient to effect a timely response, and please charge any deficiency in fees or credit any overpayments to Deposit Account No. 05-1323 (Docket #010482.52834US).

Respectfully submitted,

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Jeffrey D. Sanok
Registration No. 32,169
Frank A. Italiano
Registration No. 53,056

CROWELL & MORING LLP
Intellectual Property Group
P.O. Box 14300
Washington, DC 20044-4300
Telephone No.: (202) 624-2500
Facsimile No.: (202) 628-8844
JDS:FAI:elew (2848617)